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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/598,864	09/13/2006	Gee Young Lee	0144 - P0047A	1511

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EXAMINER

ALLEN, JEFFREY R

ART UNIT	PAPER NUMBER
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3781

MAIL DATE	DELIVERY MODE
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04/28/2011

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/598,864	LEE, GEE YOUNG	
	Examiner	Art Unit	
	JEFFREY ALLEN	3781	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 July 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 September 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|----------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>8/5/2010, 9/13/2006</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

1. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

2. The abstract of the disclosure is objected to because it contains more than 150 words. Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1, 2 and 5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
5. Claims 1, 2 and 5 recite the limitations "the order" but it is unclear what this order is.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hall et al. (U.S. Patent No. 6,422,413) in view of Lawrence (U.S. Patent No. 5,540,975), Rogers (U.S. Patent No. 5,430,927) and Tada et al. (JP 56-12589U).

8. Regarding claim 1, Hall discloses a metal tank (10) having an inlet pipe and an over flower pipe communicating with an upper portion of the tank body and an outlet pipe and drain pipe communicating with a lower portion of the tank (col. 4, lines 25-41, the openings communicate with both the upper portion and lower portion of the tank), the tank body being constructed with a bottom surface (Fig. 7, the higher side of the tank can be interpreted as a bottom surface depending on the orientation of the tank) having a first metal plate (12) manufactured out of iron (col. 2, lines 55-59) and a thermal insulation material (58) manufactured out of foamed plastic (col. 5, lines 22-24) arranged in stacked relation to each other, the tank body further having side and upper surfaces having a first metal plate (12) manufactured out of iron, a thermal insulation material (58) manufactured out of foamed plastic, and a second metal plate (20) manufactured out of steel (col. 2, lines 63-65) arranged in stacked relation to each other. Hall further discloses wherein the tank has a plurality of stay reinforcement members (32) arranged between edges of the top and bottom surface of the tank body,

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and a plurality of beam reinforcement members (36) arranged between edges of the side surfaces of the tank body, wherein the stay reinforcement members and beam reinforcement members are at least partially welded to each other (col. 4, lines 4-7).

9. Hall fails to teach wherein the surfaces of the tank body are manufactured out of a plurality of panels, wherein the panels have a polyethylene resin layer, wherein the panels are attached together by securing means, wherein the tank has a ladder attached to it, and wherein the stacked layers of the panels are manufactured out of the specific claimed materials.

10. Lawrence teaches that it is known in the art to manufacture a fluid storage tank (10) wherein the tank has an inner resin layer (90) manufactured out of polyethylene (col. 4, lines 54-58) for providing corrosion protection from liquids stored within the tank (col. 4, lines 46-48).

11. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have manufactured the tank of Hall with a polyethylene resin layer, as taught by Lawrence, in order to provide the tank with corrosion protection from liquids stored within the tank.

12. Rogers teaches that it is known in the art to manufacture a storage tank with a ladder (col. 3, ll. 61).

13. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have manufactured the modified storage tank of Hall with a ladder, as taught by Rogers, in order to provide a means for a maintenance worker to access higher parts of the tank.

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14. Tada teaches that it is known in the art to manufacture a tank that is constructed out of a plurality of panels (1), wherein the panels are attached to each other through the use of securing means (81, 82).

15. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have manufactured the modified tank of Hall out of a plurality of panels, in the manner taught by Tada, so that broken parts of the tank could be easily repaired and since it has been held that constructing a formerly integral structure in various elements involves only routine skill in the art.

16. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have manufactured the stacked layers of the panels out of the specific claimed materials, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice (*In re Leshin*, 125 USPQ 416).

17. Regarding claim 2, the modified tank of Hall teaches wherein the securing means comprises first and second engagement reinforcement plates (Tada, 11) arranged at corner areas of the panels, a securing screw (Tada, 81) extending through the components of the panel, and a nut (Tada, 82) secured at the end of the screw.

18. Regarding claims 3-5, the modified tank of Hall teaches all the claimed limitations as shown above and wherein the panels of the tank have an engagement member (Tada, 23) coupled in a through-hole of a plate portion of the panels and having an upper surface and an exposed lower surface, wherein the upper surface of the

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engagement member is hermetically sealed with the polyethylene resin material, (the components of the modified tank would be hermetically sealed so that no fluid escaped from inside the tank), but fails to teach wherein polyethylene resin material is foamed, wherein the engagement member is tubular, and wherein there are a plurality of securing holes on each panel.

19. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have manufactured the polyethylene resin material to be foamed, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice (*In re Leshin*, 125 USPQ 416). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have manufactured the engagement member to be tubular, since such a modification would have been a change in shape of an existing component. A change in shape is generally recognized as being within the level of ordinary skill in the art. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have manufactured each panel with a plurality of securing holes, in order to improve the connection of the panels and since it has been held that duplication of the essential working parts of a device involves only routine skill in the art (*St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JEFFREY ALLEN whose telephone number is (571)270-

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7426. The examiner can normally be reached on Monday through Friday 9:00 AM TO 6:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anthony Stashick can be reached on (571)272-4561. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/J. A./
Examiner, Art Unit 3781

/Anthony Stashick/
Supervisory Patent Examiner, Art
Unit 3781